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09/787,722	03/21/2001	Sylvain Chevreau	PF 980065	6135
7590	11/15/2005			
Joseph S Tripoli Thomson Multimedia Licensing Inc CN 5312 Princeton, NJ 08543-0028			EXAMINER PICH, PONNOREAY	
			ART UNIT 2135	PAPER NUMBER

DATE MAILED: 11/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/787,722

Applicant(s)

CHEVREAU ET AL.

Examiner

Ponnoreay Pich

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 8/30/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

The examiner notes that the previous office action had indication of allowable subject matter. Upon further consideration of the prior art and the scope of the claim language, however, the indication of allowable subject matter is hereby withdrawn. Any inconvenience is regretted. Claims 1-12 are pending.

#### ***Response to Arguments***

Applicant's arguments have been considered fully, but are moot in view of new grounds of rejection below.

#### ***Claim Objections***

Claim 9 is objected to because of the following informalities: Claim 9 refers to "the digital data" and "said digital data". The examiner believes applicant meant for both "the digital data" and "said digital data" to refer to the same digital data. The examiner respectfully suggests applicant be consistent with the usage of "the" and "said" as using both seems to imply different digital data. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-12 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1. Claim 1 recites "the identification" in line 3, which lacks antecedent basis. The examiner assumes applicant meant "an identification".
2. Claim 9 recites "said system" in line 20. It is unclear to which system is being referred as there are two systems recited in claim 9.
3. Claim 9 recites "said detection means" in line 16 and 23, which lacks antecedent basis. The examiner assumes applicant meant to refer to "means for detecting" in line 7 and perhaps meant "said means for detecting".
4. Claim 9 recites "the protection system" in lines 19 and 26. It is unclear to which protection system is/are being referred. Note there is a system for protection against copying in line 13 and a system for protection against playing in line 20. It could also be that "the protection system" doesn't refer to either systems recited in claims 13 and 20.
5. Claim 9 recites "the data" in line 24, which lacks antecedent basis.
6. Any claims not specifically addressed are rejected by virtue of dependency.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-8 and 10-12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

**Claim 1:**

Claim 1 recites a method which can be implemented entirely in software.

Software by itself is not statutory. The examiner notes that applicant may overcome this

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101 rejection by reciting hardware in the claim language which is tied in some manner to the method of claim 1, i.e. the method is implemented using some form of hardware.

**Claims 2-8 and 10-12:**

Claims 2-8 and 10-12 merely further defines the software method recited in claim

1. Nothing statutory is recited.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Linnartz (US 6,314,518).

**Claim 1:**

Linnartz discloses a method of protection against the copying of digital data stored on an information carrier consisting of delivering a permission or a prohibition to copy and/or to play said digital data as a function of an identification or otherwise of at least: an encryption of said digital data and a watermarking of said digital data (abstract; col 4, lines 1-19; and col 5, lines 30-47).

Note the delivering is a function of an identification **or** otherwise of at least an encryption and watermarking. Linnartz discloses playback is inhibited if a state of 'never-copy' is detected or if the content is found on media that is not original. Copying is also prevented if a "never copy" watermark is detected and identified. These teachings read on delivering a permission or prohibition to a copy and/or to play said digital data as a function of an identification.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 8, and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz (US 6,314,518).

#### **Claim 1:**

Linnartz discloses a method of protection against the copying of digital data stored on an information carrier consisting of delivering a permission or a prohibition to copy and/or to play said digital data as a function of an identification (abstract; col 4, lines 1-19; and col 5, lines 30-47) or otherwise of at least: an encryption of said digital data (col 8, line 63-col 9, line 41) and a watermarking of said digital data (col 5, lines 30-47).

Note that Linnartz discloses several embodiments of his invention, which includes different ways and combinations of ways to control copying and/or playing of digital data. The first embodiment only delivers the permission or prohibition as a function of an identification or a watermarking of the digital data (col 4, lines 1-19; and col 5, lines 30-47). However, Linnartz also discloses other embodiments where the permission or prohibition delivery also depends on a hash value associated with the digital data (col 8, line 63-col 9, line 41). Note that a hash value is obtained via a one-way encryption of data, so the hash value disclosed by Linnartz is an encryption of the digital data.

At the time applicant's invention was made, it would have been obvious to one of ordinary skill in the art to combine these various features of Linnartz's invention according to the limitations recited in claim 1. One of ordinary skill would have been motivated to do so because a digital data owner/distributor might only want to incorporate some of the features of Linnartz's teachings and not others for copy and/or play control depending on the cost to implement the features. For example, a large corporation whose data are extremely valuable might be able to afford to incorporate as many copy/play control features as possible to safeguard their data, while a smaller corporation might only be able to afford to incorporate only one or two features from Linnartz's teachings.

**Claim 2:**

The limitations recited in claim 2 are obvious to Linnartz's teachings. Linnartz teaches a permission for digital copying is delivered when:

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1. An encryption of said digital data, i.e. hash, has been identified (col 8, line 63-col 9, line 41).
2. A watermarking of said digital data has been identified (col 5, lines 30-47).
3. A cryptographic signature accompanying said digital data has been identified (col 9, lines 13-41).

Note that in the fifth embodiment of Linnartz's invention, an MPEG decoder computes a hash value and signs the hash before sending it back to the drive. The examiner submits that this reads on having to identify the cryptographic signature before delivering a permission for digital data copying. The reason for this is that it would be pointless to provide a signature and not identify it in Linnartz's invention since signatures are used for verification purposes.

Linnartz does not explicitly disclose a permission for digital copying is delivered when a non-recordable type of carrier has been identified. However, Linnartz teaches identifying a non-recordable type of carrier (col 4, lines 14-18) and allowing only one copy of a digital data to be made (col 5, lines 25-44), which reads on a permission for digital copying is delivered when a non-recordable type of carrier has been identified. At the time applicant's invention was made, it would have been obvious to one of ordinary skill in the art to modify Linnartz's invention further to determine whether to deliver a permission for digital copying when a non-recordable type of carrier has been identified because it would indicate the carrier is the original, i.e. master copy, therefore it is ok to create more copies, i.e. for distribution to ordinary customers who would then



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not be allowed to make more copies since the carrier they have is not a non-recordable type of carrier.

**Claim 3:**

The limitations recited in claim 3 are obvious to Linnartz's teachings. Linnartz discloses wherein a permission for digital copying is delivered when:

1. An encryption of said digital data has not been identified (col 6, lines 45-48 and col 9, lines 11-12).
2. A watermarking of said digital data has not been identified (col 5, lines 4-10).

Note that for the first limitation in claim 3, Linnartz is silent on the digital data being encrypted. In fact, in col 9, lines 11-12 he states that encryption of the MPEG stream is not favorable, meaning that the data is unencrypted. Because of this, the first limitation recited in claim 3 is implicitly taught by Linnartz. Since the digital data is not encrypted, Linnartz would not look for encryption of the digital data in this particular embodiment, therefore encryption of said digital data would never be identified and permission for digital copying is still delivered. At the time applicant's invention was made, it would have been obvious to one of ordinary skill to incorporate teachings from the various embodiments of Linnartz's invention according to the limitations recited in claim 3 for the same reasons and motivation given in claim 1.

The examiner further notes that the limitations recited in claim 3 also read on a system which does not use any form of copy protection at all and always delivers permission for digital copying, which is well known in the art of digital media

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copying/playing. At the time applicant's invention was made, it would have been obvious to one of ordinary skill to modify Linnartz's invention so that there is no copy protection at all. One of ordinary skill would have been motivated to do so if the digital data owner doesn't care about the data being copied at all and instead want to minimize costs to produce the data, i.e. people who only created the digital data as a hobby and don't care about profiting from the data would not necessarily care if other people copied and/or played their data.

**Claim 4:**

The limitations recited in claim 4 are obvious to Linnartz's teachings. Linnartz discloses wherein a prohibition of playing said digital data is delivered when a watermarking of said digital data has been identified (col 1, lines 47-52 and col 4, lines 1-9). Further, as discussed in claim 1, an embodiment of Linnartz is silent of identifying an encryption of said digital data. Because of this, the limitation of a prohibition of playing of said digital data is delivered when an encryption of said digital data is delivered when an encryption of said digital data has not been identified is implicitly disclosed by Linnartz. At the time applicant's invention was made, it would have been obvious to one of ordinary skill to incorporate teachings from the various embodiments of Linnartz's invention according to the limitations recited in claim 4 for the same reasons and motivation given in claim 1.

**Claim 5:**

The limitations recited in claim 5 are obvious to Linnartz's teachings. Linnartz discloses wherein a prohibition of copying is delivered when:

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1. An encryption of said digital data has been identified (col 9, lines 12-41).
2. A watermarking of said digital data has been identified (col 5, lines 30-47).

Note the fifth embodiment of Linnartz's invention verifies a hash, which reads on the first limitation recited in claim 5 since the hash is a one-way encryption of the digital data.

Linnartz does not explicitly disclose wherein a prohibition of copying is delivered when a recordable type of carrier has been identified. However, Linnartz discloses identifying a recordable type of carrier (col 4, lines 16-18) and allowing only one copy of a digital data to be made (col 5, lines 25-44). At the time applicant's invention was made, it would have been obvious to one of ordinary skill to also deliver a prohibition of copying when a recordable carrier is identified. One of ordinary skill would have been motivated to do so because Linnartz discloses that in one of his embodiments, he is also interested in controlling the number of copies of digital data (col 5, lines 25-44). Sending a prohibition of copying when a recordable carrier is identified would help control the number of copies of said digital data since it indicates that the data has been copied at least once already, i.e. for distribution to ordinary consumers and to not allow copies to be made from a non-master copy carrier.

**Claim 6:**

The limitations recited in claim 5 are obvious to Linnartz's teachings. Linnartz teaches wherein a prohibition of copying is delivered when:

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1. An encryption of said digital data, i.e. hash, has been identified (col 8, line 63-col 9, line 41).
2. A watermarking of said digital data has been identified (col 5, lines 30-47).
3. No cryptographic signature accompanying said digital data has been identified (Fig 5).

In the first embodiment represented by Figure 5, Linnartz is only using watermarking to control copying/playing of digital data. He is completely silent on cryptographic signatures until later embodiments of his invention, i.e. embodiments 4-5 (col 8, line 63-col 9, line 41). Because of this, the limitation of a prohibition of copying is delivered when no cryptographic signature accompanying said data has been identified is implicitly disclosed by Linnartz since no signature can be identified if one does not look for a signature.

Linnartz does not explicitly disclose a prohibition of copying is delivered when a non-recordable type of carrier has been identified. However, Linnartz teaches identifying a non-recordable type of carrier (col 4, lines 14-18). Further it is known and obvious that one cannot write to a non-recordable type of carrier. At the time applicant's invention was made, it would have been obvious to one of ordinary skill in the art to deliver a prohibition of copying when a non-recordable type of carrier is identified as it would inform the user why copying cannot be completed, i.e. copying cannot be completed because user accidentally inserted a non-recordable media to be written to.

At the time applicant's invention was made, it would have been obvious to one of ordinary skill in the art to incorporate the various teachings of Linnartz according to the limitations recited in claim 6 for the same reasons and motivations given in claim 1.

**Claims 8 and 12:**

Linnartz further discloses wherein the prohibition of digital copying comprises a blocking of output of the digital data (col 4, lines 1-3).

**Claim 10:**

Linnartz further discloses wherein a permission or a prohibition to copy and/or play said digital data is delivered as a further function of the identification of a recordable or non-recordable type of said information carrier (col 4, lines 14-20).

**Claim 11:**

Linnartz further discloses wherein a permission or a prohibition to copy and/or to play said digital data is delivered as a further function of the identification or not of a cryptographic signature accompanying said digital data (col 8, line 67-col 9, line 8).

At the time applicant's invention was made, it would have been obvious to one of ordinary skill in the art to incorporate the various teachings of Linnartz according to the limitations recited in claim 11 for the same reasons and motivations given in claim 1.

Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz (US 6,314,518) in view of Ichinoi (US 6,266,477).

**Claim 7:**

Linnartz does not explicitly disclose:

1. A conversion of the digital data into analog signals.
2. A corruption of the analog signals if a prohibition of digital copying is delivered.

However, Ichinoi discloses:

1. A conversion of the digital data into analog signals (col 3, lines 4-7 and col 4, lines 19-30).
2. A corruption of the analog signals if a prohibition of digital copying is delivered (col 11, lines 21-35).

At the time applicant's invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Linnartz and Ichinoi according to the limitations recited in claim 7. One of ordinary skill would have been motivated to incorporate Ichinoi's teachings in which digital data is converted to analog signals as Ichinoi recognizes that there are still technology that consumers have which are analog in nature, therefore in the art, there exists a need that digital systems be backwards compatible with them (col 1, lines 23-33 and col 2, lines 13-18). Incorporating Ichinoi's teachings would satisfy this need for backwards compatibility. One of ordinary skill would have been motivated to incorporate Ichinoi's teachings of corrupting the analog signals if a prohibition of digital copying is delivered as it would help prevent copying of protected material (col 11, lines 33-35).

**Claim 9:**

Linnartz discloses the limitation an output for delivering signals representative of the digital data upon playing said digital data (Fig 5, item 58).

Linnartz discloses means for detecting: a watermarking of said digital data (col 5, lines 30-47), a recordable or non-recordable type of said information carrier (col 4, lines 14-18), a cryptographic signature accompanying said digital data (col 8, line 67-col 9, line 8).

Linnartz discloses a system for protection against the copying of said digital data, said system being able to receive signals from said detection means and to generate a copy permission signal or a copy prohibition signal as a function of the signals received from said means for detecting (col 4, lines 1-5 and col 5, lines 42-44).

Linnartz discloses recording control means blocking the signals delivered at the digital output when said recording control means receive a copy prohibition signal from the protection system (col 5, lines 42-44).

Linnartz discloses a system for protection against playing, said system being able to receive signals from said detection means and to generate a playing prohibition signal when an encryption of said digital data has not been detected and a watermarking of said digital data has been detected by said detection means (col 1, lines 47-55 and col 4, lines 1-5). Note that in one of the embodiments disclosed by Linnartz, he is only worried about copy/play control via the use of watermarks and not encryption. In fact, he doesn't check encryption of the data at all, therefore, the playing

prohibition signal would be generated based on an encryption of the digital data not being detected and based on the watermarking of the digital data.

Linnartz discloses playing control means being able to interrupt the playing of the data or their output to an output when said playing control means receive a playing prohibition signal from the protection means (col 1, lines 47-55 and col 4, lines 1-5).

Note that the above limitations disclosed by Linnartz were disclosed in various embodiments of his invention. At the time applicant's invention was made, it would have been obvious to one of ordinary skill in the art to combine these various features of Linnartz's invention according to the limitations recited above for the same reasons and motivations given in claim 1.

Linnartz does not explicitly disclose a digital output, an analog output for delivering analog signals. Linnartz does not explicitly disclose means for detecting an encryption of said digital data and a system for decrypting said digital data when an encryption is detected.

However, Ichinoi discloses digital and analog outputs (col 2, lines 13-18). Linnartz discloses a descrambler removing the encryption that was performed at a broadcast station to prevent unauthorized use (col 4, lines 5-8). This reads on means for detecting an encryption of said digital data and a system for decryption said digital data when an encryption is detected. Note that a broadcast station typically transmits both encrypted and unencrypted signals corresponding to premium and free shows. Thus, the descrambler must be able to determine which signals are encrypted and which are not to properly perform decryption on the signals.



At the time applicant's invention was made, it would have been obvious to one of ordinary skill in the art to combine Linnartz and Ichinoi's teachings according to the limitations recited in claim 9. One of ordinary skill would have been motivated to incorporate Ichinoi's teachings as it would allow for backwards compatibility between digital and analog technologies.

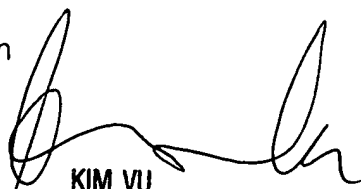
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ponnoreay Pich whose telephone number is 571-272-7962. The examiner can normally be reached on 9:00am-4:30pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ponnoreay Pich  
Examiner  
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